

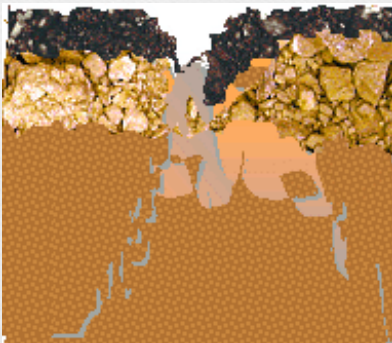
Full Depth Reclamation

David Stowell

Full Depth Reclamation (FDR)

What is FDR?

Bituminous pavement
needing repair



FDR Example



Overlay

8-12 inches
stabilized material

Granular base

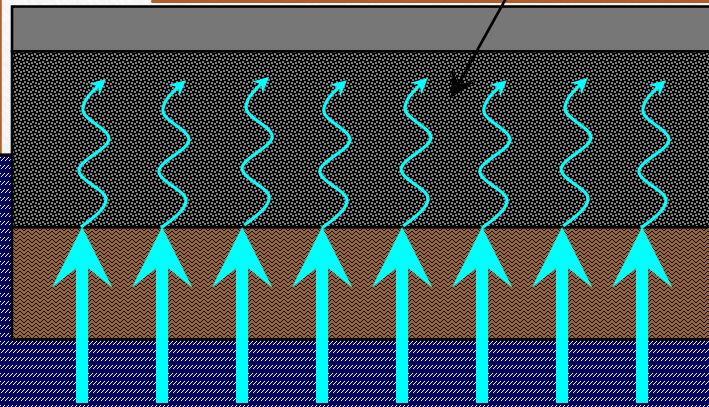
Soil

Stabilization/FDR

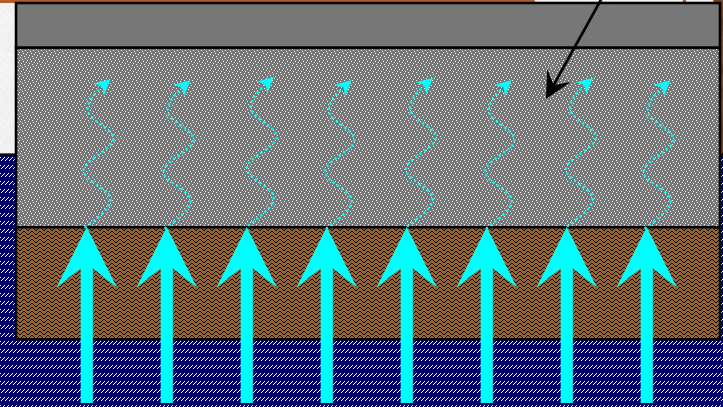
- Performed on wide variety of materials
- Heavy duty and long service life
- Contributes structurally .30 or better
- Permanent
- Primary, Secondary, Neighborhood streets, and Parking Lots!

Reduced Moisture Susceptibility

Unstabilized Granular Base



Cement-Stabilized Base



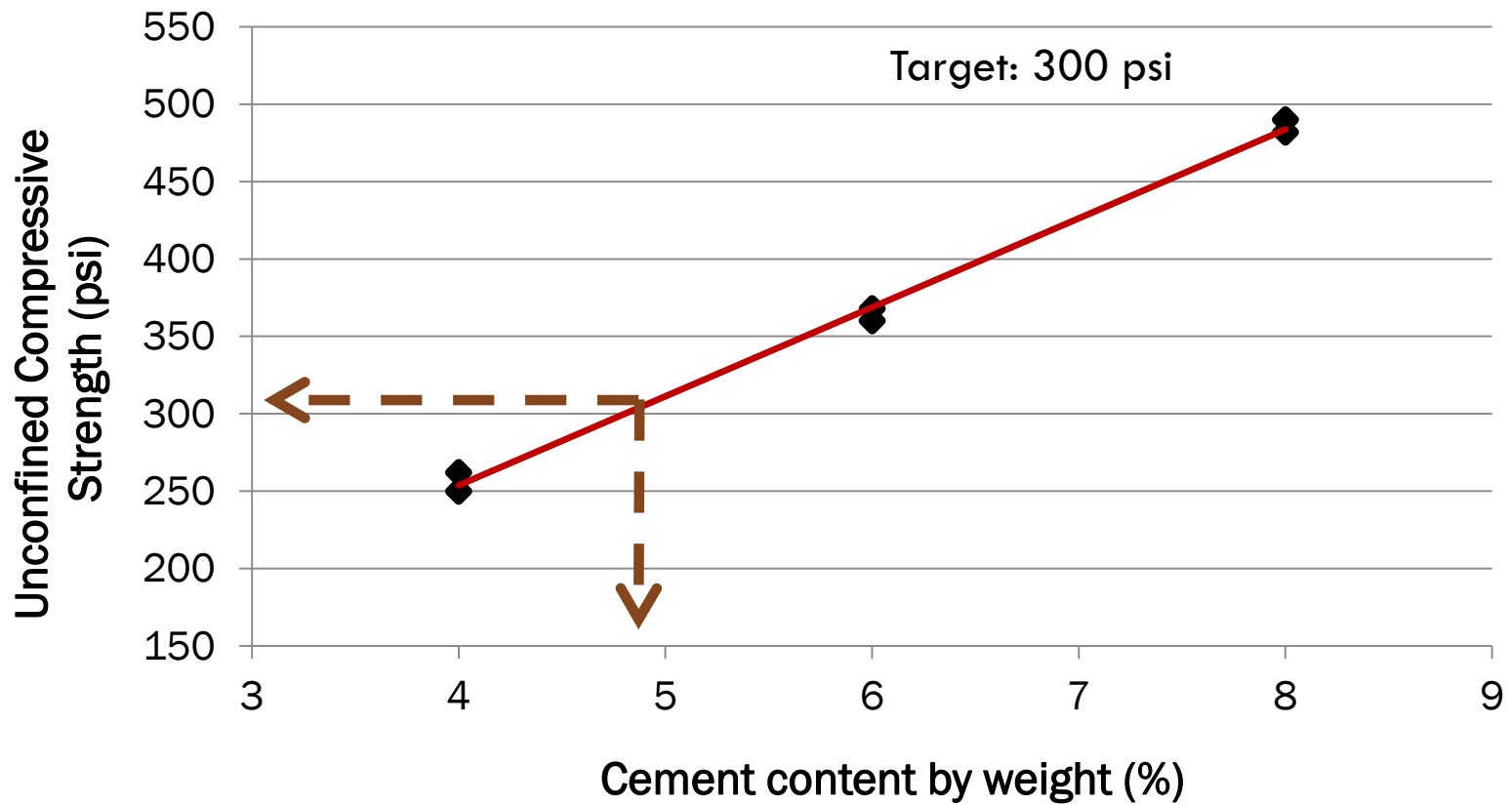
Moisture infiltrates base:

- Through high water table
- Through capillary action
- Causes softening, lower strength, and reduced modulus

Cement stabilization:

- Reduces permeability
- Helps keep moisture out
- Maintains high level of strength and stiffness even when saturated

Strength vs. Cement Content



Curing

- Ensures surface durability and normal strength gain
- Curing Methods:
 - Moist Cure
 - Asphalt Emulsion
 - Chip Seal







What roads are Candidates?

- Distress from base failure

- Distorted section
- Full depth patching exceeding 15%
- Sections that need structural upgrade



Full Depth Reclamation (FDR)

Keys to Success

- Pavement & material assessment
- Engineered mix design
- Choose correct additive for the application
- Performance-related specifications
- Construction guidelines & QC specs



Benefits

- Competitive cost
- Allows thinner pavement sections
- Can use in-situ materials
- Quick construction
- Reduces moisture susceptibility
- Fatigue and rutting improved
- Uniformity and less erosion

Cost and Energy

Performance and Energy

WESTIN



SOUTHEAST CEMENT
PROMOTION ASSOCIATION